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IS 11019 (1984): Carbofuran, Technical [FAD 1: Pesticides and Pesticides Residue Analysis]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

SPECIFICATION FOR CARBOFURAN, TECHNICAL

LDC 632.951 CARBOFURAN



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MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR CARBOFURAN, TECHNICAL

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Indian Standard

SPECIFICATION FOR CARBOFURAN, TECHNICAL

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 August 1984, after the draft finalized by the Pest Control Sectional Committee had been approved by the Agricultural and Food Products Division Council and the Chemical Division Council.

0.2 Carbofuran, technical is used for the preparation of formulations for the control of insect pests in the field of agriculture.

0.3 Carbofuran is the accepted common name by the International Organization for Standardization (ISO) for 2, 3-dihydro-2, 2-dimethyl benzofuran-7-yl methylcarbamate. The empirical and structural formulae and the molecular mass of this product are as given below:

Empirical Formula	Structural Formula	Molecular Mass
$C_{15}H_{18}NO_3$		221

0.4 In the preparation of this standard, due consideration has been given to the provisions of the *Insecticides Act*, 1968 and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under these, wherever applicable.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

1. SCOPE

1.1 This standard prescribes the requirements and methods of sampling and test for **carbofuran, technical**.

2 REQUIREMENTS

2.1 Description — The material shall be in the form of fine powder, off white in colour.

2.2 The material shall also comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR CARBOFUHAN, TECHNICAL

SL No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST, REF TO	
			Appendix of IS : 9360-1980*	Cl No. of IS : 6940-1982†
(1)	(2)	(3)	(4)	(5)
i)	Carbofuran content, percent by mass, <i>Min</i>	75.0	A	
ii)	Moisture content, percent by mass, <i>Max</i>	3.0	—	4
iii)	Alkalinity (as NaOH), percent by mass, <i>Max</i>	0.05	—	11.3

*Specification for carbofuran granules, encapsulated.

†Methods of test for pesticides and their formulations (first revision).

3. PACKING AND MARKING

3.1 Packing — The material shall be packed in clean and dry containers made of fibre-board or mild steel with a polyethylene liner of thickness not less than 0.062 mm. The containers shall also comply with the general requirements as stipulated in 2 of IS : 8190 (Part 1)-1980*.

3.2 Marking — The containers shall bear legibly and indelibly the following information in addition to any other information as required under the *Insecticides Act* and Rules.

- Name of the material;
- Name of the manufacturer;
- Date of manufacture;
- Batch number;
- Carbofuran content, percent (*m/m*);
- Net mass of the contents; and
- The cautionary notice as worded in *Insecticides Act* and Rules.

*Requirements for packing of pesticides: Part 1 Solid pesticides (first revision).

3.2.1 Each container may also be marked with the **ISI** Certification Mark.

NOTE — The use of the **ISI** Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The **ISI** Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by **ISI** and operated by the producer. **ISI** marked products are also continuously checked by **ISI** for conformity to that standard as a further safeguard Details of conditions under which a licence for the use of the **ISI** Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4. SAMPLING

4.1 Represent&e samples of the material shall be drawn as prescribed in IS : 10946-1984*.

5. TESTS

5.1 Test shall be carried out by the methods referred to in col 4 and 5 of Table 1.

5.2 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (see IS : 1070-1977†) shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Methods for sampling of technical grade pesticides.

†Specification for water for general laboratory use (second revision).

IS : 11019 - 1984

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